CQ24A-BAC



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Protocol Implementation Conformance Statement - PICS

General information

Parameterisation:	Belimo Assistant App
Date:	21.Januar 2019
Vendor Name:	BELIMO Automation AG
Vendor ID:	423
Product Name:	CQ Zone Rotary Actuator
Product Model Number:	CQ24A-BAC
Applications Software Version:	01.05.0001
Firmware Revision:	09.00.0000
BACnet Protocol Revision:	12
Product Description:	CQ Zone Rotary Actuator
BACnet Standard Device Profile:	BACnet Application Specific Controller (B-ASC)

BACnet Interoperability Building Blocks supported:
Data Sharing - ReadProperty-B (DS-RP-B)
Data Sharing - ReadPropertyMultiple-B (DS-RPM-B)
Data Sharing - WriteProperty-B (DS-WP-B)
Data Sharing - WritePropertyMultiple-B (DS-WPM-B)
Data Sharing - COV-B (DS-COV-B)
Device Management - DynamicDeviceBinding-B (DM-DDB-B)
Device Management - DynamicObjectBinding-B (DM-DOB-B)
Device Management - DeviceCommunicationControl-B (DM-DCC-B)

Segmentation Capability:	No
Data Link Layer Options:	MS/TP master, Baud rates: 9'600, 19'200, 38'400, 76'800, 115'200 Default: 38'400
Device Address Binding:	No static device binding supported
Networking Options:	None
Character Sets Supported:	ISO 10646 (UTF-8)
Gateway Options:	None
Network Security Options:	Non-secure Device

PICS *(continued)*

Object processing

Object type	Optional properties	Writeable properties
Analog Input [AI]	Description COV Increment	COV Increment
Analog Output [AO]	Description COV Increment	Present Value COV Increment Relinquish Default
Analog Value [AV]	Description COV Increment	Present Value COV Increment
Binary Input [BI]	Description Active Text Inactive Text	
Device	Description Location Active COV Subscriptions Max Master Max Info Frames Profile Name	Object Identifier Object Name Location Description APDU Timeout (1000…60'000) Number Of APDU Retries (0...10) Max Master (1...127) Max Info Frames (1...255)
Multi-state Input [MI]	Description State Text	
Multi-state Output [MO]	Description State Text Relinquish Default	Present Value
Multi-state Value [MV]	Description State Text	Present Value

The device does not support the services CreateObject and DeleteObject.

The specified maximum length of writable strings is based on single-byte characters.

- Object name 32 char
- Location 64 char
- Description 64 char

- The HVAC application checks the ranges of the Present Value and the COV Increment of the Analog Objects. For this reason, there is the following behavior:
  - No error message, if the limits have been exceeded
  - Too high values are set to the range maximum
  - Too small values are set to the range minimum
- The valid range of the Max Master property is 1…127. If the value 0 is written to the Max Master property, then the value will be automatically limited to the minimal value of the valid range, which is the value 1.

Service processing

The device supports the DeviceCommunicationControl services. No password is required.

A maximum of 6 active COV subscriptions with a lifetime of 1…28800 sec. (max. 8 hours) are supported.

BACnet object description

Object Name	Object Type / Instance	Description / Comment	Values	Value Default	COV Increment	COV Increment Default	Access
Device_Name	Device[x]		0… 4194302	1	-	-	W
RelPos	AI[1]	Relative Position in %	0…100	-	0.1…100	1	R
AbsPos	AI[2]	Absolute Position in degree	0...90	-	0.1…90	1	R
SpRel	AO[1]	Relative Setpoint in %	0...100	0	0.1…100	1	C
Max	AV[98]	Max Setpoint in %	30...100	a)	0.1…100	1	W
BusWatchdog	AV[130]	Timeout for Bus Watchdog in s *0 = watchdog deactivated* *Timeout for Bus Watchdog is by default 120s (parameterizable).*	0...3600	0	0.1...100	1	W

a) The value is defined by the motor control.

Object Name	Object Type / Instance	Description / *Comment*	Values	Default	Access
SummaryStatus	BI[101]	Summary Status	0: OK 1: Not OK	-	R

Object Name	Object Type / Instance	Description / Comment	Values	Default	Access
InternalActivity	MI[100]	Internal Activity	1: None 2: None 3: Adaption 4: Synchronization	-	R
StatusDevice	MI[110]	Status Device	1: OK 2: Bus Watchdog triggered	-	R
Override	MO[1]	Override Control	1: None 2: Open 3: Close 4: None 5: None 6: Max	1	C
Command	MV[120]	Initiate Function	1: None 2: Adaption 3: None 4: Synchronization	1	W

a) The value is defined during production according to the customer's request.

Access: R = Read, W = Write, C = Commendable with priority array